ABSTRACT OF THE DISCLOSURE

A substrate positioning device for use with a scrollable display utilizes reflective and transmissive optical sensors to detect the presence of frame markers at the top and bottom of display art frames and a rotary encoder to determine the rotary position of the substrate storage tube at particular positions along the display art. A controller is used to recieve sensor input data from optical sensors and rotary encoder to determine the relationship between the position of the substrate and the rotary position of the substrate storage tube. The specific relationship between the position of the display art and the rotary position of the substrate storage tube is maintained and periodically updated to ensure correct positioning of display art within the scrolling display.Using this relationship it is possible to predict the position of the display art based soley on the rotary position of the substrate storage tube alone. This technique is especially useful in the case where frame markers are obscured or damaged through use. Accordingly the device does not depend on the longevity and physical condition of the frame markers for proper operation.